

Physics Department Management Review

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Physics Department Management Review

This presentation is part of the periodic senior management review of ESSH performance related to the EMS and OHSAS management systems in the Physics Department.

The purpose is to assess management system effectiveness and identify opportunities for improvement.

Agenda

- Scope and overview of the management systems
- Hazard and environmental aspects identification
- Review of related assessments
- Financial investments and stakeholder concerns
- FY11 performance versus goals
- Proposed FY12 goals
- Management feedback

EMS and OHSAS Scope

- NPP Work (Office & Experiments) in Buildings 510, 515, 901A
- FY 2012 will include other buildings during RSL-2 as per MOUs
 - 355, 901, 1005, ...
- ATF Operations & Experiments in Building 820
- CMPMSD in Building 510
 - CMPMSD is part of BES, but uses 510
 - Review of experiments in 510 CMPMSD responsibility
 - PO maintains reference to ESRs in EMS
 - Use 510 90-Day Area – keep “trail” of process → waste
- Approximately 285 Employees, 225 Guests in the Department

Operating Mechanisms

- Hazards, Environmental Aspects & Controls identified & reviewed via ESRs & work planning
- ECR reviews all ESRs for Environmental component
- IH Rep reviews all ESRs for concerns/monitoring
- All ESRs have Pollution Prevention plans
- ESRs provide Risk Assessment for each hazard
- Information distribution
 - Web pages
 - [http://www.phy.bnl.gov/~safety/EMS; ...OHSAS; ...ESRs](http://www.phy.bnl.gov/~safety/EMS;...OHSAS;...ESRs)
 - New employee handout
 - Always a topic at weekly Physics Department management meeting
 - All-hands meetings
 - ESSH Committee Meetings
 - Group Safety Coordinator (GSC – Worker Committee) meetings
 - Group leader meetings

Hazards & Environmental Aspects

Hazards:

- Hazardous or Toxic Materials
- Electrical Energy
- Flammable Gases and Liquids
- Flammable or Combustible Materials
- Cryogenic materials/devices
- Oxygen deficiency potential
- Ionizing Radiation
- Non-Ionizing Radiation
- Radioactive Materials
- Operating Vehicles
- Housekeeping Hazards
- Working Environment Hazards
- Nanomaterials (CMP)

SEAs:

- Regulated Industrial Waste Generation
- Hazardous Waste Generation
- Radioactive Waste Generation (sealed sources)
- Storage/Use of Chemicals & Radioactive Materials
- Liquid Discharges

External Assessments

- Independent Oversight – Facility Safety Assessment – 3/11
 - Hazard categorization assessment
- BHSO Nano-materials Audit – 3/11
- Multi-topic Assessment – 3/11
 - LOTO
 - Transportation of hazardous materials
- EMS-OHSAS Audit – 6/11
- Inspection and Acceptance Audit – 6/11
 - Reviewed Purchase Orders and follow up – LINUX farm
- RCRA Hazardous Waste Audit – 9/11
- IH Surveillance Audit – 10/11

BNL Internal Assessments

- Nessus Daily scans for cyber security high vulnerability
- Nessus Full Scans – Quarterly
- Bulk Gas and Lead Storage Inventory – 2/11
 - Lead in 820
- Sealed Radioactive Source Use Audit & Inventory – 9/11

Physics Assessments

- Tier 1 Inspections
- Management Work Observations
- Quarterly Reviews of ATF Area Dose Rates
- Required Annual Reviews
 - Individual Dose Rate including cross-departmental workers
 - Annual Policy & Procedure Reviews
 - Annual Hazard Placard Reviews
 - Annual LO/TO Review
- Various Ergonomic Evaluations
- Chemical Inventory Reconciliation – 3/11
- JRA Review – 3/11
- Physics Department FY11 Self Evaluation – 12/11

Physics Incidents

- Machine Shop Violation – 10/10
 - Proper attire not worn
 - Inadequate PPE
- Plywood Blowing in the Wind – 12/10
 - Not a Physics issue, but reported by Physics personnel
- Elevated TLD Area Readings – 2/11
 - Cause investigated & additional monitoring requested
 - No personnel exposed
- Work Performed without ESR Awareness – 2/11
 - Workers never heard of ESR, did not read or sign
 - Discussion held at group meeting
- Asbestos in Ceiling Tile Glue – 2/11
 - Workers removing tiles informed of condition
 - Proper remediation actions taken

Physics Incidents

- Lost ^{241}Am Source – 3/11
 - Source was found within 24-hour period
 - Corrective actions
 - Repackaged physically small source
 - Photographing all sources
- Untrained Individuals in TLD Required Area – 6/11
 - Investigated and corrective actions taken
- Laceration of Finger – 8/11
 - Student had minor cut from a Cu strip, first aid
- Head Laceration – 8/11
 - Retiree injured on beam line, first aid
- Eye Lid & Eye Laceration – 8/11
 - Reportable injury
- Knee Injury – 9/11
 - Hit desk while getting up, first aid

Financial Investments & Stakeholder Concerns

- Funded through Department Operating Budget
 - ~2 FTE for entire ESSH program
 - ECR – shared with CAD
 - SHSD Rep. – shared with other Departments (20%)
- No External Stakeholder Concerns Communicated or Identified
- Staff Involved with Teacher and Student Mentoring Programs

Physics Performance FY2011

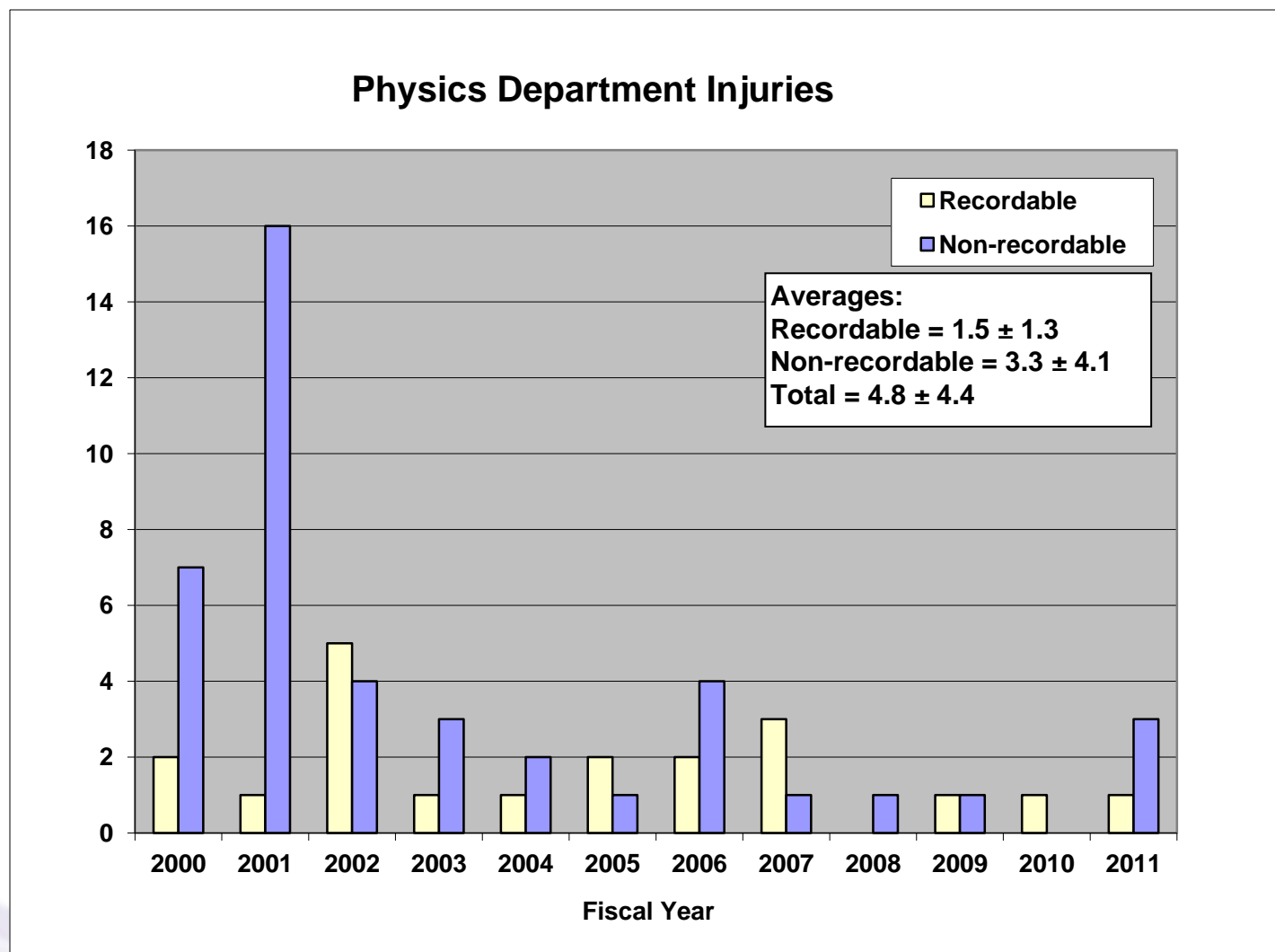
■ EMS and OHSAS Targets

- Post new area-based PPE requirements on all laboratory rooms – Done
- Post new hazard placards on all laboratory rooms – Done
- Inventory all pressure vessels and pressure relief valves –
Not done this year, on list for next year but need guidance from ESHQ Division
- Submit repair order for the crumbling sidewalk in front of building 510 – **Submitted, but work not performed**
- Conduct at least two ergonomic evaluations - Done
- Conduct 4 inspections of satellite accumulation areas in addition to Tier 1 inspections – **Did 3**
- Identify and implement one energy reduction or conservation idea
 - Identified hoods that can be turned off except when in use

Physics Performance FY2011

- EMS and OHSAS Targets (continued)
 - Reduce excess chemicals and materials stored in the Department
 - Evaluate storage and usage of chemicals in 2 labs or work areas
 - Dispose of unneeded chemicals or materials in 2 labs or storage areas
 - Various rooms disposed of numerous chemicals, oils, and grease
 - Removed lead glass from a basement cage, sent to HWM for disposal
 - Many other labs and offices cleaned out for RSL-2 work
 - Other Activities or Issues
 - Interface with RSL-2 Initiative – ESH, energy conservation, emergency response
 - Electronic ESR Working Group

Injury Statistics



Proposed FY 2012 Targets

- Improve safety awareness in laboratory areas.
 - Inventory all pressure vessels and pressure relief valves.
 - Conduct at least two ergonomic evaluations.
- Provide effective waste and material management.
 - Identify and dispose of priority excess materials and wastes from two laboratories. [\[RSL-2 cleanups\]](#)
 - Identify and dispose of unneeded, damaged, or old radioactive sources. [\[Identified sources, disposal in progress\]](#)
 - Conduct four inspections of satellite accumulation areas in addition to Tier 1 inspections.
- Promote energy efficiency.
 - Identify and implement one energy reduction or conservation idea. [\[Some webinars replacing travel\]](#)

Management Feedback

- Are the Systems Effective and Adequate in terms of:
 - Policy commitments?
 - Achieving objectives & performance measures?
 - Identifying SEA, impacts & Risks?
 - Resource allocation, information systems & organizational issues?
- Are Objectives & Targets Suitable in terms of:
 - Environmental impacts & injury/illnesses?
 - Meeting regulatory requirements?
 - Should additional objectives/targets be established?
- Recommendations for Improvements?